

NEOTROPICAL MYRSINACEAE -- XV

Cyrus Longworth Lundell

Director, Plant Sciences Laboratory
The University of Texas at Dallas
Richardson, Texas 75083-0688

AURICULARDISIA Lundell, *Phytologia* 49: 341. 1981

AURICULARDISIA EURUBIGINOSA Lundell, sp. nov. -- Arbor, 15 m.; ramuli crassiusculi, adpresse rufo-furfuracei; folia pallida, petiolata, petiolo canaliculato, 5--7 mm. longo, subtus adpresse furfuraceo; lamina chartacea, peradpresse lepidota, anguste oblongo-lanceolata, 8--15 cm. longa, 1.7--4 cm. lata, apice acuminata, basi acuta, revoluta, margine integra; inflorescentia terminalis, paniculata, pyramidalis, ad 18 cm. longa, dense rufo-furfuracea; flores 5-meri, capitellati, subsessiles; pedicelli crassi, subnulli vel ad 2 mm. longi; sepala crassa, ovata, ca. 1.6 mm. longa, asymmetrica, auricula hyalino-ciliata, punctata, apice acuta; ovarium punctatum; fructus subglobosus, ca. 6 mm. diam.

Panama: Prov. Bocas del Toro, Cordillera de Talamanca, 2 to 5 airline km. NW of the peak of Cerro Echandi on the Costa Rican-Panamanian international border, elev. 2600--2850 m., March 1--9, 1984, G. Davidse et al. 25486 (holotype, LL), understory tree 15 m. tall, flower buds whitish, fruit green to red to black.

The leaves dry pale brownish. The petiole is reddish-furfuraceous but the blade is lepidote with small appressed scales. Noteworthy are the small heads of flowers, essentially sessile, with coriaceous obscurely punctate ovate acute sepals which are auriculate.

AURICULARDISIA QUADRATUS Lundell, sp. nov. -- Arbor, 4 m.; ramuli crassiusculi, adpresse lepidoti; folia petiolata, petiolo 1--1.5 cm. longo, canaliculato, subtus dense lepidoto; lamina membranacea, elliptica, 11--15 cm. longa, 5--7.5 cm. lata, apice subabrupte subacuminata, basi acutiuscula, integra, nigropunctata, supra glabra, subtus minute lepidota, utrinque reticulata; inflorescentia terminalis, squarrosa, multiramosa, multiflora, minute rufo-lepidota, trichoma substipitata; flores 5-meri, subcorymbosi, pedicelli 3--5 mm. longi; sepala asymmetrica, auriculata, hyalina, ovato-lanceolata, ca. 2.2 mm. longa, acuta, cioliolata, dense nigropunctata; petala oblongo-lanceolata, ca. 6 mm. longa, basi connata, apice asymmetrica, acuta, hyalina, nigropunctata; stamina ca. 4 mm. longa; filamenta ca. 1 mm. longa; antherae crassae, elliptico-lanceolatae, ca. 3 mm. longae, apiculatae; ovarium ovoideum, apice truncatum, minute nigropunctatum, glabrum, stylo punctato, petala aequante.

Costa Rica: Prov. Puntarenas, foothills of the Cordillera de Talamanca, around Tres Colinas, elev. 1800--1850 m., March 20, 1984, Gerrit Davidse et al. 25645 (holotype, LL), tree 4 m. tall, petals pink, anthers yellow, fruit red to black (ripe).

The large inflorescence has strongly zigzag branches which form squares, whence the name.

ICACOREA Aubl., Pl. Guian. 2: Suppl. 1. 1775

ICACOREA BEKOMIENSIS Lundell, sp. nov. -- Arbor, 6 m.; ramuli graciles, novelli minute et peradpresse lepidoti; folia petiolata, petiolo 5--7 mm. longo, anguste marginato, parce lepidoto; lamina subcoriacea, elliptica vel obovata, 3--6.5 cm. longa, 1.5--3.2 cm. lata, apice obtusa, basi acuta, subtus parce lepidota, integra, utrinque minute reticulato-venosa; inflorescentia terminalis, paniculata, ad 7 cm. longa et lata, parce et minute lepidota, glabrata; flores 5-meri, umbellato-corymbosi; pedicelli ca. 6 mm. longi, parce lepidoti; sepala parva, late ovata, 1.2--1.4 mm. longa, minute et dense nigropunctata, margine anguste hyalina; corolla ca. 6.5 mm. longa; petala oblonga, basi connata, linearis-venosa, parce nigropunctata; stamina 5 mm. longa; filamenta ca. 2.5 mm. longa; antherae crassae, lanceolato-oblongae, ca. 3 mm. longae, apice birimosae; ovarium glabrum, stylo ca. 6.5 mm. longo; ovula, 14, 18, parva, pluriseriata.

Costa Rica: Puntarenas-Limon border, Cordillera de Talamanca, Cerro Bekom, 11 airline km. SSW of the peak of Cerro Kamuk, elev. 2600--2750 m., Mar. 21, 1984, Gerrit Davidse 25710 (holotype, LL), understudy tree 6 m. tall, petals dark pink on the back, whitish-pink on the front, filaments white, anthers yellow.

I. bekomiensis and I. latisepala are very closely related, differing in the much smaller sepals of I. bekomiensis as well as its thicker oblongish anthers and fewer ovules. I. bekomiensis dries blackish, and its mostly elliptic leaves are rather obscurely reticulate veined on both surfaces and sparsely lepidote beneath.

ICACOREA BREVIPES Lundell, sp. nov. -- Arbor, 5 m.; ramuli graciles, novelli peradpresse minute lepidoti; folia supra glabra, subtus minute peradpresse lepidota, petiolata, petiolo 3--6 mm. longo, anguste marginato; lamina chartacea, lanceolata, 3.5--7.5 cm. longa, 1.7--3 cm. lata, apice breviter acuminata, acumine obtusiuscula, margine integra, utrinque minute nigropunctata et reticulata; inflorescentia terminalis, paniculata, ad 9 cm. longa et lata, basi adpresse lepidota; flores 5-meri, corymbosi; pedicelli fructiferi 1.5--3 mm. longi; calyx basi crassus, minute nigropunctatus; sepala ovata, hyalina, ca. 1 mm. longa, minute punctata; fructus subglobosus, nigropunctatus; stylo ca. 3 mm. longo.

Costa Rica: Prov. Puntarenas, foothills of the Cordillera de Talamanca, around Tres Colinas, elev. 1800--1850 m., Mar. 20, 1984, Gerrit Davidse et al. 25680 (holotype, LL), treelet 5 m. tall, fruit green with reddish tint.

The branchlets and petioles dry blackish. Reticulation of the leaf blades is rather obscure but most prominent beneath where the punctation is also densest. The open inflorescences are blackish, slender-branched, and glabrous above the short lepidote peduncle. Notable are the very short pedicels which are enlarged at the base of the calyx. Sepals are small, thin, and conspicuously punctate with minute glands.

Probably related to *I. bekomiensis* Lundell.

ICACOREA DENTICULATA Lundell, sp. nov. -- Arbor, ad 3 m. alta; ramuli graciles, novelli peradpresse lepidoti; folia glabra, petiolata, petiolo 5--8 mm. longo, canaliculato, late hyalino-marginato; lamina chartacea, lanceolata, 7.5--13 cm. longa, 2.5--4.8 cm. lata, apice acuminata, basi acutiuscula, margine denticulata, subtus reticulata, utrinque nigropunctata; inflorescentia terminalis, paniculata, 5--10 cm. longa, parce lepidota; flores 5-meri, subcorymbosi vel umbellato-corymbosi; pedicelli graciles, 5--7 mm. longi; sepala lanceolato-elliptica, ca. 1.5 mm. longa, acuta vel subacuminata, hyalina, dense et minute rubro-punctata, corolla ca. 4.6 mm. longa; petala lanceolata, basi connata, parce punctata, apice asymmetrica, acuta; stamina ca. 3.5 mm. longa; filamenta ca. 1.5 mm. longa; antherae lineari-lanceolatae; placentae globosae; ovula 11 vel 12, pluriseriata; fructus subglobosus, 5--6 mm. diam.

Costa Rica: Cordillera de Tilaran, Flora de Monteverde, Comunidad, en bosque perturbado, alt. 1400--1500 m., Nov. 28, 1976, V. J. Dryer 1010 (holotype), arbol, 3 m., flores rosado-claras. Two other collections from the same area, Dryer 873A (F) and 1246 (F), are referable to this species.

I. denticulata resembles *I. dentata* DC. of Cuba, but the latter does not have leaves reticulate beneath and prominently black punctate with rather small black glands, characteristics of *I. denticulata*. The new taxon appears to be related to *I. longicaudata* (Lundell) Lundell of Costa Rica, a species with mostly small lateral inflorescences. It differs also in punctation.

The conspicuous hyaline margins of the petioles of *I. denticulata* are distinctive. Also, its anthers are dehiscent by two small flaring apical pores. Its petals are sparsely punctate, as contrasted with the dense small reddish glands of the thin acute or acuminate sepals.

ICACOREA GUANACASTENSIS Lundell, sp. nov. -- Arbor, 10 m.; rami crassi; ramuli graciles, novelli peradpresse et minute lepidoti; folia novella basi lepidota, glabrata, petiolata, petiolo 3--5 mm. longo, anguste marginato; lamina integra, subcoriacea, oblanceolata, 5--9.5 cm. longa, 2--4 cm. lata, apice

subabrupte breviter acuminata, basi acuta; inflorescentia terminalis, paniculata, basi minute lepidota, ad 8 cm. longa, densiflora; flores 5-meri, corymbosi; pedicelli 3--5 mm. longi; sepala parva, ovata, 1.3--1.5 mm. longa, minute punctata, apice glandula aurantiaca, acutiuscula; corolla ca. 6 mm. longa; petala anguste oblongo-lanceolata, apice asymmetrica, parce lineato-punctata; stamina ca. 5 mm. longa; filamenta ca. 2 mm. longa; antherae anguste linearilanceolatae, 3--3.5 mm. longae, apice attenuatae; ovarium ovoideum, minute punctatum; ovula 15--17, pluriseriata.

Costa Rica: Prov. Guanacaste, Parque Nacional Rincon de la Vieja, the SE slopes of Volcan Santa Maria, evergreen montane forest, elev. 900--1200 m., Jan. 27--28, 1983, G. Davidse et al. 23307 (holotype, LL), tree 10 m. tall, petals white, pedicels pink.

I. guanacastensis is closely related to Icacorea Whitei (Lundell) Lundell, a species with anthers thick, shorter, not tapering to apex, and drying blackish. The longer anthers of I. guanacastensis are pallid, very slender, and dehiscent by two small flaring apical pores. Petals of the latter have very slender and fewer lineate glands and apically are mostly epunctate, the glands being very small and few when present.

In this species complex differences in the anthers appear to have significance.

ICACOREA GUINEALENSIS Lundell, sp. nov. -- Arbor, 10 m.; ramuli graciles, glabrati; folia glabra, petiolata, petiolo marginato, 1--1.3 cm. longo; lamina chartacea, anguste oblongo-oblancoolata, 10--21 cm. longa, 3.5--5.5 cm. lata, apice subabrupte breviter acuminata, basi obtusiuscula, marginata, subtus subtiliter venosa, supra foviolata, integra; inflorescentia terminalis, paniculata, pyramidalis, ad 15 cm. longa, basi peradpresso et minute lepidota; flores 5-meri, corymbosi; pedicelli fructiferi graciles, apice clavati, 8--9 mm. longi; sepala lanceolato-elliptica, 2.5--3 mm. longa, punctata, margine hyalina; fructus subglobosus, punctatus.

Costa Rica: Prov. Puntarenas, foothills of the Cordillera de Talamanca, vicinity of Helechales, along the Rio Guineal, elev. 1100--1200 m., March 29, 1984, Gerrit Davidse & G. Herrera Ch. 26215 (holotype, LL), tree 10 m. tall, along river bank, berries black.

In fruit, the plant is essentially glabrous. Although the pedicels of fruits are slender, they are enlarged below the calyx. The rather large sepals are thin with the glands inconspicuous. The oblong-oblancoolate leaf shape is distinctive, with the apex short acuminate and the base decurrent and marginate on the petiole.

Probably related to Icacorea polydactyla (Lundell) Lundell and Icacorea polyantha (Lundell) Lundell, both from Costa Rica.

ICACOREA LATISEPALA Lundell, sp. nov. -- Arbor, 7 m.; ramuli graciles, novelli peradpresse lepidoti; folia parva, supra glabra, subtus parce et minute lepidota, petiolata, petiolo 5--7 mm. longo, canaliculato; lamina coriacea, integra, obovato-elliptica vel oblanceolata, 4.5--7.5 cm. longa, 2--3.5 cm. lata, apice obtusa, basi acuta; inflorescentia terminalis, paniculata, dense et multiflora, ad 8 cm. longa et lata, glabrata; flores 5-meri, corymbosi; pedicelli 5--7 mm. longi; sepala crassa, ovata, 2--2.3 mm. lata et longa, apice obtusa vel rotundata, dense et minute aurantiaco-punctata vel nigropunctata, margine anguste hyalina; corolla ca. 7.5 mm. longa; petala anguste lanceolata, basi connata, apice asymmetrica, lineari-venosa et punctata; stamina ca. 5 mm. longa; filamenta ca. 2.5 mm. longa; antherae lanceolatae, ca. 3 mm. longae, apice birimosae; ovarium ovoideum, apice subtruncatum, stylo ca. 8 mm. longo; ovula parva, ca. 28, pluriseriata.

Panama: Prov. Bocas del Toro, Cordillera de Talamanca, 8 airline km. NW of the peak of Cerro Echandi on the Costa Rican-Panamanian international border, elev. 2800--2900 m., Mar. 4 & 9, 1984, G. Davidse et al. 25279 (holotype, LL), common understory tree 7 m. tall, petals pink without, pinkish-white within, filaments and style white, anthers bright yellow.

The numerous small ovules, the large flowers with filaments subequaling anthers, the linear-veined petals with scattered mostly rounded glands, the broadly ovate thick sepals densely punctate with minute mostly orange glands, and the glabrous inflorescences drying blackish are among the features distinguishing this taxon.

ICACOREA TRIANGULA Lundell, sp. nov. -- Arbor, 5 m.; ramuli graciles et crassiusculi, novelli lepidoti; folia subtus lepidota, glabrata, petiolata, petiolo 3--5 mm. longo, anguste marginato; lamina subcoriacea, parvipunctata, elliptica, 3.5--7.5 cm. longa, 2.5--4 cm. lata, apice subabrupte breviter acuminata, basi acutiuscula, supra glabra, margine integra; inflorescentia terminalis, paniculata, pyramidalis, multiflora, ad 11 cm. longa, novella parce lepidota, basi dense minute lepidota; flores 5-meri, corymbosi; pedicelli 3--6 mm. longi; sepala late ovata, 1.8--2 mm. longa, margine minute ciliolata, late hyalina, in medio crasso-triangula, minute punctata, glandula apice aurantiaca, basi nigropunctata; corolla 6.5--7 mm. longa; petala elliptico-lanceolata, basi connata, parce punctata, apice asymmetrica; stamina ca. 6 mm. longa; filamenta ca. 2 mm. longa; antherae lanceolatae, 4--4.5 mm. longae, apice birimosae; ovarium ovoideum, glabrum, stylo ca. 6 mm. longo, punctato; placenta subglobosa, ovula parva, 27, 29, pluriseriata.

Costa Rica: San Jose, Patarra, Cerro El Espino (Alto Mata de Caña-Azahar), elev. 1600--1800 m., Nov. 13, 1983, G. Herrera y I. A. Chacon 1579 (holotype, LL), arbolito de 5 m. de alto, caliz rojiso, corola blanco rosado, estambres amarillos, frutos lilas.

ICACOREA TRIANGULA resembles ICACOREA RIGIDIFOLIA (Lundell) Lundell from the Province of Coclé, Panama. I. triangula differs notably in its larger flowers, especially the larger ovate sepals which have a well defined triangular glandular area medially and a wide hyaline margin. The sharply triangular area of the sepals is unique, whence the specific name.

MYRSINE L., Linn. Syst. ed. I (1735);
Gen. ed. I. 54 (1737)

MYRSINE NIGRESCENS Lundell, sp. nov. -- Arbor, 6 m.; ramuli graciles, glabri, lenticellati; folia petiolata, petiolo 5--7 mm. longo, canaliculato, margine villosociliato; lamina chartacea, oblonga vel oblanceolata, 5--9 cm. longa, 1.5--2.8 cm. lata, apice acuminata, basi attenuata, acuta, revoluta, margine ciliata, glabrata, nigropunctata, utrinque reticulata, integra; flores 5-meri, fasciculati; pedicelli fructiferi crassi, 1--2 mm. longi; calyx crassus, rugosus; sepala crassa, ovata, ca. 1 mm. longa, ciliolata; fructus punctatus.

Panama: Prov. Bocas del Toro, Cordillera de Talamanca, headwaters of the Rio Culubre, 6 airline km. NW of the peak of Cerro Echandi on the Costa Rican-Panamanian international border, elev. 2450--2600 m., March 2--3, 1984, G. Davidse et al. 25239 (holotype, LL), slender tree 6 m. tall, fruit green.

This is a well-marked species, with leaves much paler beneath and blackened above. Its stems and petioles blacken when dried. The margin of the petioles and the basal third of the leaf blades are ciliate with conspicuous villous-like hairs, the leaf is otherwise glabrous at maturity except along the midvein. Both surfaces of the leaf, especially beneath, are reticulate-veined and black punctate with small scattered glands. The fruits are fasciculate on old wood on small elevated black bracteate nodules. The lenticellate stems are conspicuous with large lenticels.

MYRSINE VERAECRUCIS Lundell, sp. nov. -- Arbor, 5 m.; ramuli crassiusculi, glabri; folia glabra, subsessilia vel petiolata, petiolo ad 8 mm. longo, rugoso, marginato; lamina parva, coriacea, obovata, 2.5--7.5 cm. longa, 1.5--3.5 cm. lata, apice late obtusa vel rotundata, basi acuta, marginata, revoluta, integra, minute punctata; flores 5-meri, fasciculati, glabri; pedicelli fructiferi crassi, 0.5--1 mm. longi; sepala crassa, elliptica vel ovato-elliptica, ca. 1 mm. longa, acutiuscula, minute punctata; fructus subglobosus, ca. 4 mm. diam., rugosus.

Mexico: Veracruz, Mun. Alvarado, en el km. 22 de la carretera Veracruz-Alvarado, alt. 20 m., May 21, 1977, Juan Ismael Calzada 3200 (holotype, F; isotype, XAL), arbol, 5 m., fruto verde.

Growing at sea level, Myrsine verae-crucis is related to Myrsine mexicana (Lundell) Lundell, a montane species of which the

type collection was made by Eizi Matuda in Chiapas, on Pico de Loro near Escuintla. They differ in leaf shape, length of fruiting pedicels, and in shape of sepals. Both taxa have flowers fasciculate on short, crowded, bracteate, lateral spurs. In *M. verae-crucis* the young tender leaves are ciliolate with reddish hairs.

A NEW SPECIES OF EUONYMUS (CELASTRACEAE)
FROM MEXICO

Cyrus Longworth Lundell

EUONYMUS PLATYPHYLLUS Lundell, sp. nov. -- Arbor, 6 m.; ramuli graciles, quadrangulares, glabri; folia petiolata, petiolo 3.5--5 mm. longo, canaliculato; lamina chartacea, glabra, late elliptica, 6.5--12 cm. longa, 4.2--7 cm. lata, apice subabrupte breviter-acuminata basi subrotundata et acutiuscula, utrinque reticulata, crenulata, pallide viridia; cymae 1--3-florae, terminales; pedunculi teretes; pedicelli fructiferi teretes, ca. 4 mm. longi, crassi; sepala 1.3--2 mm. lata; capsula tuberculata.

Mexico: Veracruz, Estacion Biologica de los Tuxtlas, selva alta perennifolia, Sept. 8, 1971, Juan Ismael Calzada 494 (holotype, XAL; xerox, LL), arbol 6 m., escasa.

This species with broadly elliptic leaves, finely reticulate on both surfaces, and with small few-flowered terminal cymes less than 1 cm. long, is known only from a specimen with immature tuberculate capsules.